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Tamotsu Sakuraba

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EXAMINER

MCLEAN, NEIL R

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/802,858	Applicant(s) SAKURABA ET AL.	
	Examiner Neil R. McLean	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 16-19 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 20, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. Claims 1-23 are pending in this application.
Claims 16-19 and 21 have been withdrawn.
Claims 1-15, 20, and 22-23 are being examined.

Response to Arguments

2. Regarding Applicant's Argument (page 2, line 20 – page 3, line 2):

“In this application, a prima facie case of obviousness has not been established because the Examiner has not clearly articulated a reason why one of ordinary skill would find the claimed combination obvious in view of the cited references.”

Examiner's Response:

In response to applicant's argument that a prima facie case of obviousness has not been established, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case,

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Teraura & Torigoe are combinable because they are from the same field of endeavor of image processing; e.g., both references disclose methods of reading and writing and judging the content of 'embedded' marks in a paper document. Both references also disclose methods of inhibiting printing and/or inhibiting users from accessing a document if that document is not intended for them. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate Teraura's printer which reads and writes RFID data to the RFID tag on a sheet of printing paper in addition to Torigoe's method of detecting embedded data such as watermarks. The suggestion/motivation for doing so is to provide a secure means of printing a document and to prevent unauthorized access to that document. It would have been obvious to combine Teraura with Torigoe to obtain the invention as specified in order to protect, prevent or deter unauthorized copying of digital media.

3. Regarding Applicant's Argument (page 4, lines 11-17):

"According to *Teraura*, permission or inhibition data may be stored in RFID tag 14. In contrast, claim 1 requires "printing the specified mark on a recording element including an IC tag" and "writing mark information indicating the specified mark's content on the IC tag included in the recording element." The permission and inhibition data in *Teraura* do not correspond to data that is printed. Therefore, *Teraura* does not teach or suggest the claimed combination of elements."

Examiner's Response:

Teraura discloses at Column 9, lines 16-25 and in Figure 8; The control circuit 29 controls the third reader-writer 17 to write the data read from the RFID tag 14 of the sheet of document paper 61 in the RFID tag 14 of the sheet of the printing paper 13 in step B17. Next, the control circuit 29 controls the printing unit 11 to print the image including characters, figures, and photo images read from the sheet of document paper 61 with the RFID tag 14 on the sheet of the printing paper 13 with the RFID tag 14 in step B18.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claim 22 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 22 is drawn to functional descriptive material NOT claimed as residing on a computer readable medium. MPEP 2106.IV.B.1(a) (Functional Descriptive Material) states:

"Data structures not claimed as embodied in a computer-readable medium are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer."

"Such claimed data structures do not define any structural or functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized."

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Claim 22, while defining an 'image forming program that causes a computer to execute a process...', does not define a "computer-readable medium" and is thus non-statutory for that reasons. An 'image forming program that causes a computer to execute a process...' can range from paper on which the program is written, to a program simply contemplated and memorized by a person.

The Examiner suggests amending the claim to embody the program on "computer-readable medium" in order to make the claim statutory.

"In contrast, a claimed computer-readable medium encoded with the data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory." - MPEP 2106.IV.B.1(a)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made

4. Claims 1-15, 20, and 22-23 are rejected under 35 U.S.C. 103(a) as being anticipated by Torigoe (US 2002/0018228) in view of Teraura (US 6,827,279).

Regarding Claim 1:

An image forming device (e.g., FIG. 1 is a block diagram of an image processing system),
comprising:

a receiving unit for receiving a printing job (e.g., CPU contained in Host 101 executes a program stored in Memory 103, or External memory 104, or supplied from an external apparatus as described in [0040]);

a judging unit for judging whether an instruction for adding a specified mark to be printed in addition to image data is included in the printing job received by said receiving unit or not (e.g., CPU 102 executes a program stored in the memory 103 to realize detection, judgment, color processing, quantization processing, and the like of a digital watermark or another mark for specifying a printing inhibition image as described in [0040]);

a printing unit (e.g., Printer 110 in Figure 1) for printing the specified mark on a recording element including an IC tag (e.g., The pattern may be an invisible digital watermark for embedding information in a specific frequency of an image, a visible digital watermark for embedding the information by a color invisible to human eyes (e.g., yellow dot), or any other digital watermark as described in [0040].) when it is judged by said judgment unit that the instruction for adding the specified mark (e.g., A mark detection unit 203 detects whether or not there is a specific mark or an image pattern for specifying the pre-registered printing inhibition image as described in [0042]) is included in the printing job (e.g., Judgment unit 204 determines whether or not the image to be printed is inhibited from being printed as described in [0042]); and

a writing unit for writing mark information indicating the specified mark's content on the IC tag included in the recording element when it is judged by said judgment unit that the instruction for adding the specified mark is included in the printing job (e.g., A quantization unit 208 for the printer 110, a color processing and quantization of the image data are performed in a conventional known method, and the data is converted to data which can be printed by the printer 110 as described in [0042].)

Torigoe does not disclose expressly a printing unit for printing the specified mark on a recording element including an IC tag when it is judged by said judgment unit that the instruction for adding the specified mark is included in the printing job” and “a writing unit for writing mark information indicating the specified mark’s content on the IC tag included in the recording element when it is judged by said judgment unit that the instruction for adding the specified mark is included in the printing job.

Teraura discloses a printing unit (FIG. 2 shows an outline structure of a copy machine with a facsimile function) for printing the specified mark on a recording element including an IC tag when it is judged by said judgment unit that the instruction for adding the specified mark is included in the printing job” and “a writing unit for writing mark information indicating the specified mark’s content on the IC tag included in the recording element when it is judged by said judgment unit that the instruction for adding the specified mark is included in the printing job (Referring to Figure 6: When the personal computer 39 transmits the printing command and data to the copy machine 1, the data communication control circuit 31 receives the printing command in step A1. Next, the control circuit 29 judges whether the received data includes RFID data to be written in the RFID tag 14 in step A2. When the data including the software and the manual is transmitted from the personal computer 39, the control circuit 29 detects the presence of the RFID data in the transmitted data (YES in step A2). Then, the control circuit 29 selects the paper tray 7 containing sheets of the printing paper 13 having the selected size with the RFID tags 14 and feeds a sheet of the printing paper 13 to the printing paper feeding path 9 from the selected paper tray 7. Next, the control circuit 29 controls the third reader-writer 17 near the printing paper feeding path 9 to store the data of the software transmitted from the personal computer 39 in the RFID tag 14 in step A4. Next, the control circuit 29 controls the printing unit 11 to print an image including characters and figures on the sheet of the printing paper 13 with the RFID tag in step A5. Then, processing ends; Column 7, lines 3-51)

Teraura & Torigoe are combinable because they are from the same field of endeavor of image processing; e.g., both references disclose methods of reading and writing and judging the content of 'embedded' marks in a paper document. Both references also disclose methods of inhibiting printing and/or inhibiting users from accessing a document if that document is not intended for them. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate Teraura's printer which reads and writes RFID data to the RFID tag on a sheet of printing paper in addition to Torigoe's method of detecting embedded data such as watermarks. The suggestion/motivation for doing so is to provide a secure means of printing a document and to prevent unauthorized access to that document. It would have been obvious to combine Teraura with Torigoe to obtain the invention as specified in order to protect, prevent or deter unauthorized copying of digital media.

Regarding Claim 2:

An image forming device as claimed in claim 1, wherein
said writing unit writes on the IC tag included in the recording element IC tag information including the IC tag's managing number and the mark information indicating the specified mark's content (Based on a drawing command outputted from an application 201, image information, for example, of respective 8 bits of RGB, that is, 24 bits rasterized in the image to be printed is stored in an image memory 202 in the printer driver as described in [0042]);
said image forming device further comprising an IC tag information transmitting unit for transmitting the IC tag information written on said IC tag by said writing unit to an external device that is capable of communicating with said image forming device (The

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host 101 is connected to the printer 110 via the interface 106, and quantized image data is transmitted to the printer 110 which is then allowed to perform printing/recording as described in [0040])

Regarding Claim 3:

An image forming device as claimed in claim 2, wherein
said IC tag's managing number is assigned by said external device and received from said external device (FIG. 2 is a block diagram showing an image processing by software executed by the program (printer driver) installed, for example, in the host computer, and outlines of periphery)

Regarding Claim 4:

An image forming device as claimed in claim 2, wherein
said IC tag information further includes information for specifying the image forming device used for writing the IC tag information (Based on a drawing command outputted from an application 201, image information, for example, of respective 8 bits of RGB, that is, 24 bits rasterized in the image to be printed is stored in an image memory 202 in the printer driver as described in [0042].)

Regarding Claim 5:

An image forming device as claimed in claim 3, wherein
said IC tag information further includes information for specifying the image forming device used for writing the IC tag information (Based on a drawing command outputted from an application 201, image information, for example, of respective 8 bits of RGB, that is, 24 bits rasterized in the image to be printed is stored in an image memory 202 in the printer driver as described in [0042].)

Regarding Claim 6:

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An image forming device as claimed in claim 1, wherein
said specified mark is a mark indicating that it is prohibited to copy a printed
matter (It is assumed that the watermark is used for a purpose preventing illicit counterfeit of paper money, stamp, securities, and the like, besides the purpose of protecting a copyright. For example, a special mark or a watermark is multiplexed beforehand in the paper money, stamp, securities, and the like, this mark is detected by an image output apparatus, information is regarded as image information of the paper money, stamp, securities, and the like, and a processing for discontinuing printing, issuing a warning, or intentionally coating the entire surface with black is performed as described by Torigoe in [0010].)

Regarding Claim 7:

An image forming device as claimed in claim 2, wherein
said specified mark is a mark indicating that it is prohibited to copy a printed
matter (It is assumed that the watermark is used for a purpose preventing illicit counterfeit of paper money, stamp, securities, and the like, besides the purpose of protecting a copyright. For example, a special mark or a watermark is multiplexed beforehand in the paper money, stamp, securities, and the like, this mark is detected by an image output apparatus, information is regarded as image information of the paper money, stamp, securities, and the like, and a processing for discontinuing printing, issuing a warning, or intentionally coating the entire surface with black is performed as described in [0010].)

Regarding Claim 8:

An image forming device as claimed in claim 3, wherein
said specified mark is a mark indicating that it is prohibited to copy a printed matter (It is assumed that the watermark is used for a purpose preventing illicit counterfeit of paper money, stamp, securities, and the like, besides the purpose of protecting a copyright. For example, a special mark or a watermark is multiplexed beforehand in the paper money, stamp, securities, and the like, this mark is detected by an image output apparatus, information is regarded as image information of the paper money, stamp, securities, and the like, and a processing

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for discontinuing printing, issuing a warning, or intentionally coating the entire surface with black is performed as described in [0010].)

Regarding Claim 9:

An image forming device as claimed in claim 4, wherein
said specified mark is a mark indicating that it is prohibited to copy a printed
matter (It is assumed that the watermark is used for a purpose preventing illicit counterfeit of paper money, stamp, securities, and the like, besides the purpose of protecting a copyright. For example, a special mark or a watermark is multiplexed beforehand in the paper money, stamp, securities, and the like, this mark is detected by an image output apparatus, information is regarded as image information of the paper money, stamp, securities, and the like, and a processing for discontinuing printing, issuing a warning, or intentionally coating the entire surface with black is performed as described in [0010].)

Regarding Claim 10:

An image forming device as claimed in claim 5, wherein
said specified mark is a mark indicating that it is prohibited to copy a printed
matter (It is assumed that the watermark is used for a purpose preventing illicit counterfeit of paper money, stamp, securities, and the like, besides the purpose of protecting a copyright. For example, a special mark or a watermark is multiplexed beforehand in the paper money, stamp, securities, and the like, this mark is detected by an image output apparatus, information is regarded as image information of the paper money, stamp, securities, and the like, and a processing for discontinuing printing, issuing a warning, or intentionally coating the entire surface with black is performed as described in [0010].)

Regarding Claim 11:

An image forming device as claimed in claim 1, wherein

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said specified mark is a mark indicating that it is prohibited to take out a printed matter (It is assumed that the watermark is used for a purpose preventing illicit counterfeit of paper money, stamp, securities, and the like, besides the purpose of protecting a copyright. For example, a special mark or a watermark is multiplexed beforehand in the paper money, stamp, securities, and the like, this mark is detected by an image output apparatus, information is regarded as image information of the paper money, stamp, securities, and the like, and a processing for discontinuing printing, issuing a warning, or intentionally coating the entire surface with black is performed as described in [0010].)

Regarding Claim 12:

An image forming device as claimed in claim 2, wherein

said specified mark is a mark indicating that it is prohibited to take out a printed matter (It is assumed that the watermark is used for a purpose preventing illicit counterfeit of paper money, stamp, securities, and the like, besides the purpose of protecting a copyright. For example, a special mark or a watermark is multiplexed beforehand in the paper money, stamp, securities, and the like, this mark is detected by an image output apparatus, information is regarded as image information of the paper money, stamp, securities, and the like, and a processing for discontinuing printing, issuing a warning, or intentionally coating the entire surface with black is performed as described in [0010].)

Regarding Claim 13:

An image forming device as claimed in claim 3, wherein

said specified mark is a mark indicating that it is prohibited to take out a printed matter (It is assumed that the watermark is used for a purpose preventing illicit counterfeit of paper money, stamp, securities, and the like, besides the purpose of protecting a copyright. For example, a special mark or a watermark is multiplexed beforehand in the paper money, stamp, securities, and the like, this mark is detected by an image output apparatus, information is regarded as image information of the paper money, stamp, securities, and the like, and a

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processing for discontinuing printing, issuing a warning, or intentionally coating the entire surface with black is performed as described in [0010].)

Regarding Claim 14:

An image forming device as claimed in claim 4, wherein said specified mark is a mark indicating that it is prohibited to take out a printed matter (It is assumed that the watermark is used for a purpose preventing illicit counterfeit of paper money, stamp, securities, and the like, besides the purpose of protecting a copyright. For example, a special mark or a watermark is multiplexed beforehand in the paper money, stamp, securities, and the like, this mark is detected by an image output apparatus, information is regarded as image information of the paper money, stamp, securities, and the like, and a processing for discontinuing printing, issuing a warning, or intentionally coating the entire surface with black is performed as described in [0010].)

Regarding 15:

An image forming device as claimed in claim 5, wherein said specified mark is a mark indicating that it is prohibited to take out a printed matter (It is assumed that the watermark is used for a purpose preventing illicit counterfeit of paper money, stamp, securities, and the like, besides the purpose of protecting a copyright. For example, a special mark or a watermark is multiplexed beforehand in the paper money, stamp, securities, and the like, this mark is detected by an image output apparatus, information is regarded as image information of the paper money, stamp, securities, and the like, and a processing for discontinuing printing, issuing a warning, or intentionally coating the entire surface with black is performed as described in [0010].)

Regarding Claim 20:

Claim 20, a method claim is rejected in the same manner as device claim 1.

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Regarding Claim 22:

Claim 22, a Computer Executable Program Process method claim is rejected in the same manner as device claim 1.

Regarding Claim 23:

A computer readable recording medium in which the image forming program as claimed in claim 22 is recorded (A method of storing a program for operating the aforementioned embodiment constitution to realize the aforementioned embodiment function into a storage medium, reading the program stored in the storage medium as a code, and executing the present embodiment in a client computer and a server computer is included in categories of the aforementioned embodiments, and the storage medium in which the aforementioned program is stored is also included in the aforementioned embodiments as described in [0086].)

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tomomatsu (US 7,058,214) discloses an image processing apparatus comprising, in order to judge an image prohibited by law from being printed at high speed, a judgment unit for judging for each predetermined area whether or not an output requested image includes information indicating that the image is a judgment object image; and a determination unit for determining the predetermined area for each predetermined distance with respect to the output requested image.

Examiner Notes

6. The Examiner cites particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully considers the references in its entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or as disclosed by the Examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neil R. McLean whose telephone number is (571)270-1679. The examiner can normally be reached on Monday through Friday 7:30AM-4:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571.272.7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for /David K Moore/

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Supervisory Patent Examiner, Art Unit 2625 published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Neil R. McLean/
Examiner, Art Unit 2625